

Fernald's species is based, furnished conclusive evidence of the identification. The Manual makes the following statement regarding the range of *Solidago polycephala*: "Apparently local, s. N. J. and e. Pa." Although not unexpected in a new or little known species, the extension of range seems worthy of record. It will now be interesting to learn whether it is local in this region also. The species is sufficiently distinct from *S. graminifolia* (L.) Salisb. var. *Nuttallii* (Greene) Fern. by reason of its "uncommonly small heads,"<sup>1</sup> or as Fernald<sup>2</sup> expresses it, "by its tiny involucre," and its closely appressed scales, tipped with green. The green color does not seem to me to be quite so significant as has been suggested, for there are not a few specimens of *S. graminifolia* var. *Nuttallii* in the National Herbarium which have just as green tips.—ALBERT HANFORD MOORE, Washington, D. C.

CORNUS CANADENSIS, var. INTERMEDIA IN EASTERN AMERICA.—The common bunch-berry, *Cornus canadensis* L., has the leaves ordinarily closely crowded and appearing whorled at the summit of the nearly naked or only slightly bracted stem. In northwestern America, as recently pointed out by Miss Edith M. Farr,<sup>3</sup> the common tendency of the plant is to have on the middle of the stem 1–3 pairs of well developed leaves, which are about one-half or two-thirds as large as the upper leaves. This plant, *C. canadensis*, var. *intermedia* Farr, was earlier described by Ledebour<sup>4</sup> as a species under the name *C. unalaschkensis*, but because of the pale flowers, the tendency to bunching of the upper leaves, and the general similarity of appearance, it seems best to class it as a variety of *C. canadensis*, into which it clearly passes. In Labrador and Newfoundland both *C. canadensis* (typical) and var. *intermedia* occur, and several plants from the northern half of Maine and from New Hampshire, which have been collected with the hope that they might be *C. suecica*, approach var. *intermedia* and suggest that the variety may be confidently sought in northern New England. From *C. suecica*, which the variety somewhat simulates, it is distinguished by having the more acuminate leaves, less uniform in size, the upper definitely larger than the lower and preserv-

<sup>1</sup> *Euthamia floribunda* Greene, Pittonia, v. 74 (1902), not *Solidago floribunda* Phil.

<sup>2</sup> *Solidago polycephala* Fern. RHODORA, x. 93 (May 16, 1908).

<sup>3</sup> Contrib. Bot. Lab. Univ. Pennsylvania, ii. 423 (1904).

<sup>4</sup> Fl. Ross. ii. 378 (1844–46).



ing the crowded or subverticillate appearance as in true *C. canadensis*, while the flowers (the true flowers, not the bracts) are pale as in the latter species, those of *C. succica* being dark purple.— M. L. FERNALD and K. M. WIEGAND.

HOTTONIA INFLATA A WINTER ANNUAL.— Early in December, 1910, while passing a brook at West Hingham, Mass., I was surprised to discover in the icy waters young plants of *Hottonia inflata* Ell. reaching nearly to the surface. The plant would have been easily recognized by its pectinate submerged leaves, even if I had not seen it there in blossom several times in summer. On Dec. 31, 1910, I removed an inch of ice, and gathered specimens from water at the temperature of 39° Fahrenheit. There were no signs of old plants, and the roots of these specimens were soft white cellular fibres, of very recent growth. March 26, 1911, I found that the plants in the brook had made further growth.

From these observations I am convinced that this species is a winter annual, instead of a perennial, as stated in Gray's Manual, Seventh Edition. Britton's Manual and Small's Southern Flora make no reference to the matter.

Apparently the seeds fall from the decaying stalks in late July and August, and soon germinate at the muddy bottom of the stream. The young seedlings must grow rapidly at first, with slight progress during the winter months. In May the inflated flower-stalks begin to grow, and the first flowers appear by the end of the month, reaching their fullest development about June 20. After flowering, the old plants shed the pectinate leaves and decay as the seeds ripen.

I have seen the plant growing also in Amesbury, Belmont, Waltham, Quincy, Holbrook, and Abington.— CLARENCE K. KNOWLTON, Hingham, Massachusetts.

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